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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
07/158,652	02/22/1988	MARC ALIZON	PAST-010-A	3369

7590 01/21/2003
FINNEGAN, HENDERSON, FARABOW,
GARRETT AND DUNNER
1300 I STREET, N.W.
WASHINGTON, DC 200053315

EXAMINER

FREDMAN, JEFFREY NORMAN

ART UNIT PAPER NUMBER

1637

DATE MAILED: 01/21/2003

35

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

07/158,652

Applicant(s)

ALIZON ET AL.

Examiner

Jeffrey Fredman

Art Unit

1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30,31 and 56-61 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 30,31 and 56-61 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Status

1. This rejection is non-final. It is noted that this application was suspended pending the result of Interference 102,822, which interference was resolved in favor of the other party. Therefore, the Chang et al patent, cited below in the 102 rejections, is properly 102(e) art which cannot be rebutted due to res judicata.
2. Separately, Applicant is requested, in any response to this office action, to submit a copy of the original claims which were submitted for interference, in order to determine which claims, if any, should be cancelled under 37 CFR 1.663.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 30, 31 and 56-61 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang et al (U.S. Patent 6,001,977).

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The claims utilize the open "having" language which permits the inclusion of additional elements. "Having" is interpreted as being of identical scope to "comprising".

Chang teaches nucleic acid probes of HIV-1 sequence selected from the HIV sequence (column 9, lines 25-62 and column 10, line 65 to column 11, line 32),

where the specific sequence is disclosed as SEQ ID NO: 4, for example (columns 19-28).

The alignment of the Query HIV sequences of Chang and the subject sequences of the present application in the region between nucleotides 5670 and 8132 are presented below.

```
Query:      aaagagcaga 5569
            |||||
Sbjct:      aaagagcaga 5755
env      1      K E Q
```

```
Query: 5570 agacagtggcaatgagagtgaaggagaaatatcagcacttgaggagatgggggtggagat 5629
            |||||
Sbjct: 5756 agacagtggcaatgagagtgaaggagaaatatcagcacttgaggagatgggggtggaaat 5815
env      4      K T V A M R V K E K Y Q H L W R W G W K
```

```
Query: 5630 ggggcaccatgctccttgggatgttgatgatctgtagtgctacagaaaaattgtgggtca 5689
            |||||
Sbjct: 5816 ggggcaccatgctccttgggatattgatgatctgtagtgctacagaaaaattgtgggtca 5875
env      24      W G T M L L G I L M I C S A T E K L W V
```

```
Query: 5690 cagtctattatggggtacctgtgtggaaggaagcaaccaccactctatatttgtgcatcag 5749
            |||||
Sbjct: 5876 cagtctattatggggtacctgtgtggaaggaagcaaccaccactctatatttgtgcatcag 5935
env      44      T V Y Y G V P V W K E A T T T L F C A S
```

```
Query: 5750 atgctaaagcatatgatacagaggtacataatgtttgggccacacatgcctgtgtaccca 5809
            |||||
Sbjct: 5936 atgctaaagcatatgatacagaggtacataatgtttgggccacacatgcctgtgtaccca 5995
env      64      D A K A Y D T E V H N V W A T H A C V P
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Query: 5810 cagaccccaaccacacaagaagtagtattggtaaagtgtgacagaaaattttaacatgtgga 5869
|||||

Sbjct: 5996 cagaccccaaccacacaagaagtagtattggtaaagtgtgacagaaaattttaacatgtgga 6055
env 84 T D P N P Q E V V L V N V T E N F N M W

Query: 5870 aaaatgacatggttagaacagatgcatgaggatataatcagtttatgggatcaaagcctaa 5929
|||||

Sbjct: 6056 aaaatgacatggttagaacagatgcatgaggatataatcagtttatgggatcaaagcctaa 6115
env 104 K N D M V E Q M H E D I I S L W D Q S L

Query: 5930 agccatgtgtaaaaattaaccccactctgtgttagtttaaagtgcactgatttgaagaatg 5989
|||||

Sbjct: 6116 agccatgtgtaaaaattaaccccactctgtgttagtttaaagtgcactgatttggggaatg 6175
env 124 K P C V K L T P L C V S L K C T D L G N

Query: 5994 taataccaatagtagtagcgggagaatgataatggagaaaggagagataaaaaactgctc 6053
|||||

Sbjct: 6195 taataccaatagtagtagcggggaaatgatgatggagaaaggagagataaaaaactgctc 6254
env 151 N T N S S S G E M M M E K G E I K N C S

Query: 6054 tttcaatatcagcacaagcataagaggtaagggtgcagaaagaatatgcannnnnnnataa 6113
|||||

Sbjct: 6255 tttcaatatcagcacaagcataagaggtaagggtgcagaaagaatatgcatttttttataa 6314
env 171 F N I S T S I R G K V Q K E Y A F F Y K

Query: 6114 acttgatataataccaatagataatgatactaccagctatacgttgacaagttgtaacac 6173
|||||

Sbjct: 6315 acttgatataataccaatagataatgatactaccagctatacgttgacaagttgtaacac 6374
env 191 L D I I P I D N D T T S Y T L T S C N T

Query: 6174 ctccagtcattacacaggcctgtccaaagggtatcctttgagccaattcccatacattattg 6233
|||||

Sbjct: 6375 ctccagtcattacacaggcctgtccaaagggtatcctttgagccaattcccatacattattg 6434
env 211 S V I T Q A C P K V S F E P I P I H Y C

Query: 6234 tgccccgggctggtttttgcgattctaaaatgtaataataagacggttcaatggaacaggacc 6293
|||||

Sbjct: 6435 tgccccgggctggtttttgcgattctaaaatgtaataataagacggttcaatggaacaggacc 6494
env 231 A P A G F A I L K C N N K T F N G T G P

Query: 6294 atgtacaaatgtcagcacagtagacaatgtacacatggaattaggccagtagtatcaactca 6353
|||||

Sbjct: 6495 atgtacaaatgtcagcacagtagacaatgtacacatggaattaggccagtagtatcaactca 6554
env 251 C T N V S T V Q C T H G I R P V V S T Q

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Query: 6354 actgctgttaaatggcagctctggcagaagaagaggtagtaattagatctgccaatctcac 6413
|||||

Sbjct: 6555 actgctgttgaatggcagctctagcagaagaagaggtagtaattagatctgccaatctcac 6614
env 271 L L L N G S L A E E E V V I R S A N F T

Query: 6414 agacaatgctaaaaccataatagtagcagctgaaccaatctgtagaaattaattgtacaag 6473
|||||

Sbjct: 6615 agacaatgctaaaaccataatagtagcagctgaaccaatctgtagaaattaattgtacaag 6674
env 291 D N A K T I I V Q L N Q S V E I N C T R

Query: 6474 acccaacaacaatacaagaaaaagtatccgtatccagagaggaccagggagagcatttgt 6533
|||||

Sbjct: 6675 acccaacaacaatacaagaaaaagtatccgtatccagaggggaccagggagagcatttgt 6734
env 311 P N N N T R K S I R I Q R G P G R A F V

Query: 6534 tacaataggaaaaataggaaatatgagacaagcacattgtaacattagtagagcaaatg 6593
|||||

Sbjct: 6735 tacaataggaaaaataggaaatatgagacaagcacattgtaacattagtagagcaaatg 6794
env 331 T I G K I G N M R Q A H C N I S R A K W

Query: 6594 gaataacacttttaaacagatagatagcaaattaagagaacaatttggaataataaaac 6653
|||||

Sbjct: 6795 gaatgccacttttaaacagatagctagcaaattaagagaacaatttggaataataaaac 6854
env 351 N A T L K Q I A S K L R E Q F G N N K T

Query: 6654 aataatcctttaagcagtcctcaggaggggacccagaaattgtaacgcacagttttaattg 6713
|||||

Sbjct: 6855 aataatcctttaagcaatcctcaggaggggacccagaaattgtaacgcacagttttaattg 6914
env 371 I I F K Q S S G G D P E I V T H S F N C

Query: 6714 tggaggggaatttttctactgtaattcaacacaactgtttaatagtacttggtttaatag 6773
|||||

Sbjct: 6915 tggaggggaatttttctactgtaattcaacacaactgtttaatagtacttggtttaatag 6974
env 391 G G E F F Y C N S T Q L F N S T W F N S

Query: 6774 tacttgaggactaaaggggtcaaataacactgaaggaagtgcacaaatcacctcccatg 6833
|||||

Sbjct: 6975 tacttgaggactgaaggggtcaaataacactgaaggaagtgcacaaatcacactcccatg 7034
env 411 T W S T E G S N N T E G S D T I T L P C

Query: 6834 cagaataaaacaaattataaacatgtggcaggaagtaggaaaagcaatgtatgccctcc 6893
|||||

Sbjct: 7035 cagaataaaacaaattataaacatgtggcaggaagtaggaaaagcaatgtatgccctcc 7094
env 431 R I K Q F I N M W Q E V G K A M Y A P P

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Query: 6894 catcagtggaacaaattagatgttcacaaatattacagggctgctattaacaagagatgg 6953
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||

Sbjct: 7095 catcagcggaacaaattagatgttcacaaatattacagggctgctattaacaagagatgg 7154
env 451 I S G Q I R C S S N I T G L L L T R D G

Query: 6954 tggtaatagcaacaatgagtcaggatcttcagacctggaggaggagatatgagggacaa 7013
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||

Sbjct: 7155 tggtaatatacaacaatgggtcaggatcttcagacctggaggaggagatatgagggacaa 7214
env 471 G N N N N G S E I F R P G G G D M R D N

Query: 7014 ttggagaagtgaattatataaatataaaagtagtaaaaattgaaccattaggagtagcacc 7073
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||

Sbjct: 7215 ttggagaagtgaattatataaatataaaagtagtaaaaattgaaccattaggagtagcacc 7274
env 491 W R S E L Y K Y K V V K I E P L G V A P

Query: 7074 caccaaggcaagagaagagtgggtgcagagagaaaaaagagcagtggaataggagcttt 7133
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||

Sbjct: 7275 caccaaggcaagagaagagtgggtgcagagagaaaaaagagcagtggaataggagcttt 7334
env 511 T K A K R R V V Q R E K R A V G I G A L

Query: 7134 gttccttgggttcttgggagcagcaggaagcactatgggcgacggtcaatgacgctgac 7193
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||

Sbjct: 7335 gttccttgggttcttgggagcagcaggaagcactatgggcgacggtcaatgacgctgac 7394
env 531 F L G F L G A A G S T M G A R S M T L T

Query: 7194 ggtacaggccagacaattattgtctggtatagtcagcagcagaacaatttgcagggc 7253
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||

Sbjct: 7395 ggtacaggccagacaattattgtctggtatagtcagcagcagaacaatttgcagggc 7454
env 551 V Q A R Q L L S G I V Q Q Q N N L L R A

Query: 7254 tattgagggcgaacagcatctgttgcaactcacagtctggggcatcaagcagctccaggc 7313
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||

Sbjct: 7455 tattgagggcgaacagcatctgttgcaactcacagtctggggcatcaagcagctccaggc 7514
env 571 I E A Q Q H L L Q L T V W G I K Q L Q A

Query: 7314 aagaatcctggctgtggaagatacctaaaggatcaacagctcctggggatttgggggttg 7373
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||

Sbjct: 7515 aagaatcctggctgtggaagatacctaaaggatcaacagctcctgggnatttgggggttg 7574
env 591 R I L A V E R Y L K D Q Q L L G I W G C

Query: 7374 ctctggaaaactcatttgcaccactgctgtgccttggaatgctagttggagtaataaatc 7433
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||

Sbjct: 7575 ctctggaaaactcatttgcaccactgctgtgccttggaatgctagttggagtaataaatc 7634
env 611 S G K L I C T T A V P W N A S W S N K S

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Query: 7434 tctggaacagatttgaataacatgacctggatggagtgggacagagaaattaacaatta 7493
|||||

Sbjct: 7635 tctggaacagatttgaataacatgacctggatggagtgggacagagaaattaacaatta 7694
env 631 L E Q I W N N M T W M E W D R E I N N Y

Query: 7494 cacaagcttaatacactccttaattgaagaatcgcaaaaccagcaagaaaagaatgaaca 7553
|||||

Sbjct: 7695 cacaagcttaatacattccttaattgaagaatcgcaaaaccagcaagaaaagaatgaaca 7754
env 651 T S L I H S L I E E S Q N Q Q E K N E Q

Query: 7554 agaattattggaattagataaatgggcaagtttgtggaattggtttaacataacaaattg 7613
|||||

Sbjct: 7755 agaattattggaattagataaatgggcaagtttgtggaattggtttaacataacaaattg 7814
env 671 E L L E L D K W A S L W N W F N I T N W

Query: 7614 gctgtggtatataaaaattattcataatgatagtaggaggcttggtagggtttaagaatagt 7673
|||||

Sbjct: 7815 gctgtggtatataaaaattattcataatgatagtaggaggcttggtagggtttaagaatagt 7874
env 691 L W Y I K I F I M I V G G L V G L R I V

Query: 7674 ttttgctgtactttctgtagtgaatagagttaggcagggatattcaccattatcgtttca 7733
|||||

Sbjct: 7875 ttttgctgtactttctatagtgaatagagttaggcagggatattcaccattatcgtttca 7934
env 711 F A V L S I V N R V R Q G Y S P L S F Q

Query: 7734 gaccacctcccaatcccaggggacccgacaggcccgaaggaatagaagaagaaggtgg 7793
|||||

Sbjct: 7935 gaccacctcccaaccccaggggacccgacaggcccgaaggaatagaagaagaaggtgg 7994
env 731 T H L P T P R G P D R P E G I E E E G G

Query: 7794 agagagagacagagacagatccattcgattagtgaacggatccttagcacttatctggga 7853
|||||

Sbjct: 7995 agagagagacagagacagatccattcgattagtgaacggatccttagcacttatctggga 8054
env 751 E R D R D R S I R L V N G S L A L I W D

Query: 7854 cgatctgaggagcctgtgcctcttcagctaccaccgcttgagagacttactcttgattgt 7913
|||||

Sbjct: 8055 cgatctgaggagcctgtgcctcttcagctaccaccgcttgagagacttactcttgattgt 8114
env 771 D L R S L C L F S Y H R L R D L L L I V

Query: 7914 aacgaggattgtggaacttctgggacgcagggggtgggaagccctcaaattattggtggaa 7973
|||||

Sbjct: 8115 aacgaggattgtggaacttctgggacgcagggggtgggaagccctcaaattattggtggaa 8174
env 791 T R I V E L L G R R G W E A L K Y W W N

```
Query: 7974 tctcctacagtattggagtcaggagctaaa
          |||
Sbjct: 8175 tctcctacagtattggagtcaggaactaaa
env      811 L L Q Y W S Q E L K
```

It is noted that with regard to, for example, the sequence region claimed, there are 25 nucleotide differences between the sequences. It is noted that the art recognizes that sequencing errors occur in a range between 0.3 % and 2.5%, as evidenced by Richterich (Genome Research (1998) 8:251-259). However, these error rates are determined using technology that was significantly more advanced than that in 1984, when sequencing error rates were likely significantly higher. In the 2,462 nucleotide sequence which is the first sequence of claim 30, 25 errors would represent approximately a 1% error rate. Thus, these sequences are identical within the error range available and the anticipation rejection is proper.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Fredman whose telephone number is 703-308-6568. The examiner can normally be reached on 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 703-308-1119. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.



Jeffrey Fredman
Primary Examiner
Art Unit 1637

January 16, 2003